

ABSTRACT

An object is to provide a shaft coupling which is short in axial dimension, which can transmit large power between shafts even if the offset amount of the shafts is large, and which is less expensive and can be assembled easily.

The shaft coupling includes plates 1 and 2 fitted on ends of input and output shafts A and B, respectively. A plurality of guide grooves 5 and 6 are formed in the opposed surfaces of the plates 1 and 2, respectively, so that each of the grooves 5 and 6 extend perpendicular to the corresponding groove formed in the other plate. A steel ball is disposed between each pair of guide grooves 5 and 6 of the plates 1 and 2 at a portion where the pair of grooves 5 and 6 cross each other. When the steel balls are pushed by the driving plate 1, they push the driven plate 2 while rolling in the guide grooves 5 and 6, with their movements restricted by a retainer 4 in the radial direction of the plates. Thus, large power can be smoothly transmitted between the rotary members with less frictional resistance. The offset amount can be changed easily. Between the plates 1 and 2, there are only the steel balls 3 and the retainer 4. Thus, the shaft coupling is sufficiently short in axial length, can be manufactured at a low cost, and can be assembled easily.